BRUHATH BANGALORE MAHANAGARA PALIKE
BYATARAYANAPURA DIVISION
Name of the work: Package No. 02 (Package consists of 14 works)

1. Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07
2. Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura
3. Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura
4. Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura
5. Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and Kuvempu road)in ward No 07 Byatarayanapura
6. Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura
7. Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura
8. Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura
9. Construction of 2 RO Plant in ward No. 07, Byatarayanapura

4TH AND PART BILL

QUALITY CONTROL ABSTRACT

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QUALITY CONTROL ABSTRACT									
Name Of work : - Improvements to roads and drains of Sanjeevini Nagar Main road to Military Compound next to Sterling apartment to Kodigehalli main road in ward no 07									
Job Code:-									
Bill No :- 4th and Part Bill									
Name of Agency :- Benaka Developers & Project Pvt.Ltd.									
Sl No	Description of Items	Test	Test Units	Test Per Qty	Up to Date Qty	Convertion m^3 > m^2	Convertion m^3 > Tonnes	No of Sample Conducted for Test	No. Of Sample to Be Conduct for Test
	For Plane Cement Concrete -				9.07	Cum			
1	Cement Test								
		Setting Time - IS 12269 (53 grade ordinary Portland cement)	Days	One Source		-	-	1	1
		Soundness - IS 12269 (53 grade ordinary Portland cement)	Days	One Source		-	-	1	1
		Standarad Consistancy IS 12269 (53 grade ordinary Portland cement)	Days	One Source		-	-	1	1
2	Fine Aggregate								
		Specific Gravity and Water Absorption (IS 2386 Part. 3)1963	Days	One Source		-	-	1	1
		Sieve Analysis (IS 2386-Part 1)-1963	Days	One Source		-	-	1	1
3	Coarse Aggregate								
		Sieve Analysis (IS 2386-Part 1)-1963	Days	One Source		-	-	1	1
	For M15 Concrete -				7.43	Cum			
1	Cement Test								

		Setting Time Test - IS 12269 (53 grade ordinary Portland cement)	Days	One Source		-	-	1	1
		Soundness Test - IS 12269 (53 grade ordinary Portland cement)	Days	One Source		-	-	1	1
		Standarad Consistancy Test IS 12269 (53 grade ordinary Portland cement)	Days	One Source		-	-	1	1
2	Fine Aggregate								
		Specific Gravity and Water Absorption Test (IS 2386 Part. 3)1963	Days	One Source		-	-	1	1
		Sieve Analysis Test (IS 2386- Part 1)-1963	Days	One Source		-	-	1	1
3	Coarse Aggregate								
		Aggrgate impact Value Test (AIV) (IS 2386- Part 4)-1963	Days	One Source		-	-	1	1
		Sieve Analysis Test (IS 2386- Part 1)-1963 20 mm Aggregates	Days	One Source		-	-	1	1
		Sieve Analysis Test (IS 2386- Part 1)-1963 12.5 mm Aggregates	Days	One Source		-	-	1	1
	Precast Items								
	Load Bearing Solid Block	Compression Strength Test (IS 2185, Part 1: 2005)	sqm	One Sample Per Batch	223.43	-	-	1	1
	RCC Slab 250 mm	Core Compressive Test (IS 2185, Part 1: 2005)	sqm	One Sample Per Batch	251.96	-	-	1	1

QUALITY CONTROL ABSTRACT

Name of Work:- Improvements to roads and drains Amruthanagara A sector and D Munishamappa Layout in ward no 07.Byataryanapura

Job Code:-

Bill No :- 4th and Part Bill

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Control Tests and their Minimum Frequency for Sub-Base and Bases

	ASPHALT ROADS									
S.L No	**Type of Construction**	**Test**	**Frequency (min)**	**Unit**	**Bill of Quantity**	**Unit**	**Convartion**	**No of Sample Conducted for Test**	**No. Of Sample to Be Conduct for Test**	**Remarks**
3	**Water Mix Macadam**	Aggegate Impact Value	1,000.00	Cum	879.13	Cum		1.00	1.00	If any Values 0 do 1 TEST
		Grading of Aggregates	200.00	Cum				4.00	4.00	
		Combined Flakiness and Elongation	500.00	Cum				2.00	2.00	
		Atterberg Limits	200.00	Cum				4.00	4.00	
		Density of Compacted Layer	1,000.00	Sqm			3,822.00	4.00	4.00	

QUALITY CONTROL ABSTRACT

Name Of work : - Improvements to roads and drains from 18th Cross to JNC Circle(Left Hand Side and Right Hand Side Roads from Renuka Yellamma Temple Road to JNC Circle) in Ward No.7,Byatarayanapura

Job Code:-

Bill No :- 4th and Part Bill

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Control Tests and their Minimum Frequency for Sub-Base and Bases

	ASPHALT ROADS								
S.L No	Type of Construction	Test	Frequency (min)	Unit	Bill of Quantity	Unit	Convartion	No of Sample Conducted for Test	No. Of Sample to Be Conduct for Test
3	Water Mix Macadam	Aggegate Impact Value	1,000.00	Cum	644.95	Cum		1.00	1.00
		Grading of Aggregates	200.00	Cum				3.00	3.00
		Combined Flakiness and Elongation	500.00	Cum				1.00	1.00
		Atterberg Limits	200.00	Cum				3.00	3.00
		Density of Compacted Layer	1,000.00	Sqm			2804	3.00	3.00
6	Bituminous Concrete	Quality of Binder	Per Lot or Per Day		257.59	Cum			
		Aggegate Impact Value	350.00	Cum				1.00	1.00
		Combined Flakiness and Elongation	350.00	Cum				1.00	1.00
		Binder Content	400.00	Tonne			620.80	2.00	2.00
		Density of Compacted Layer	700.00	Sqm			1717	2.00	

QUALITY CONTROL ABSTRACT

Name Of work : - Improvements to roads and drains from JNC Circle to Jakkur Double Road in Ward No.7,Byatarayanapura

Job Code:-

Bill No :- 4th and Part Bill

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Control Tests and their Minimum Frequency for Sub-Base and Bases

	ASPHALT ROADS								
S.L No	Type of Construction	Test	Frequency (min)	Unit	Bill of Quantity	Unit	Convartion	No of Sample Conducted for Test	No. Of Sample to Be Conduct for Test
3	Water Mix Macadam	Aggegate Impact Value	1,000.00	Cum	500.58	Cum		1.00	1.00
		Grading of Aggregates	200.00	Cum				3.00	3.00
		Combined Flakiness and Elongation	500.00	Cum				1.00	1.00
		Atterberg Limits	200.00	Cum				3.00	3.00
		Density of Compacted Layer	1,000.00	Sqm			2,176.00	2.00	2.00
6	Bituminous Concrete	Quality of Binder	Per Lot or Per Day		312.56	Cum			
		Aggegate Impact Value	350.00	Cum				1.00	1.00
		Combined Flakiness and Elongation	350.00	Cum				1.00	1.00
		Binder Content	400.00	Tonne			753.27	2.00	2.00
		Density of Compacted Layer	700.00	Sqm			2084	3.00	

QUALITY CONTROL ABSTRACT

me Of work : - Improvements to Roads and Drains of Pampa Extension main road to Coffee board Layout Main road(via From Canara Bank ATM and Raghvendra Hotel Circle and vempu road)in ward No 07 Byatarayanapura

b Code:-

ll No :- 4th and Part Bill

me of Agency :- Benaka Developers & Project Pvt.Ltd.

Control Tests and their Minimum Frequency for Sub-Base and Bases

	ASPHALT ROADS									
.L No	Type of Construction	Test	Frequency (min)	Unit	Bill of Quantity	Unit	Convartion	No of Sample Conducted for Test	No. Of Sample to Be Conduct for Test	Remarks
3	Water Mix Macadam	Aggegate Impact Value	1,000.00	Cum	135.26	Cum		0.00	1.00	If any Values 0 do 1 TEST
		Grading of Aggregates	200.00	Cum				1.00	1.00	
		Combined Flakiness and Elongation	500.00	Cum				0.00	1.00	
		Atterberg Limits	200.00	Cum				1.00		
		Density of Compacted Layer	1,000.00	Sqm			588	1.00	1.00	
5	Dense Bituminous Macadam	Quality of Binder	Per Lot or Per Day		29.41	Cum				If any Values 0 do 1 TEST
		Aggegate Impact Value	350.00	Cum				0.00	1.00	
		Combined Flakiness and Elongation	350.00	Cum				0.00	1.00	
		Binder Content	400.00	Tonne			70.86605	0.00	1.00	
		Density of Compacted Layer	700.00	Sqm			196	0.00		
6	Bituminous Concrete	Quality of Binder	Per Lot or Per Day		78.04	Cum				If any Values 0 do 1 TEST
		Aggegate Impact Value	350.00	Cum				0.00	1.00	
		Combined Flakiness and Elongation	350.00	Cum				0.00	1.00	
		Binder Content	400.00	Tonne			188.087245	0.00	1.00	
		Density of Compacted Layer	700.00	Sqm			520	1.00		

QUALITY CONTROL ABSTRACT

Name of Work:- Improvements to roads and drains from Bhuvaneshwarinagar Park via Gopalappa Layout to Cofee board Layout Park Road and Surrounding areas (Cubic Apartments Area) in Ward No.7,Byatarayanapura

ob Code:-

ill No :- 4th and Part Bill

ame of Agency :- Benaka Developers & Project Pvt.Ltd.

Control Tests and their Minimum Frequency for Sub-Base and Bases

	ASPHALT ROADS								
S.L No	**Type of Construction**	**Test**	**Frequency (min)**	**Unit**	**Bill of Quantity**	**Unit**	**Convartion**	**No of Sample Conducted for Test**	**No. Of Sample to Be Conduct for Test**
3	**Water Mix Macadam**	Aggegate Impact Value	1,000.00	Cum	1,222.75	Cum		1.00	1.00
		Grading of Aggregates	200.00	Cum				6.00	6.00
		Combined Flakiness and Elongation	500.00	Cum				2.00	2.00
		Atterberg Limits	200.00	Cum				6.00	6.00
		Density of Compacted Layer	1,000.00	Sqm			5,316.00	5.00	5.00
5	**Dense Bituminous Macadam**	Quality of Binder	Per Lot or Per Day		265.81	Cum			
		Aggegate Impact Value	350.00	Cum				1.00	1.00
		Combined Flakiness and Elongation	350.00	Cum				1.00	1.00
		Binder Content	400.00	Tonne			640.61	2.00	2.00
		Density of Compacted Layer	700.00	Sqm			1,772.00	3.00	
6	**Bituminous Concrete**	Quality of Binder	Per Lot or Per Day		212.65	Cum			
		Aggegate Impact Value	350.00	Cum				1.00	1.00
		Combined Flakiness and Elongation	350.00	Cum				1.00	1.00
		Binder Content	400.00	Tonne			512.49	1.00	1.00
		Density of Compacted Layer	700.00	Sqm			1418	2.00	

QUALITY CONTROL ABSTRACT

Name Of work : - Package No.02 (Package consists of 14 works). Improvements to roads and drains OF Mandi MARIYAPPA Road via Mariyannapalya to Dasarahalli Main Road in Ward No.7,Byatarayanapura

Job Code:-

Bill No :- 4th and Part Bill

Name of Agency :- Benaka Developers & Project Pvt.Ltd.

Control Tests and their Minimum Frequency for Sub-Base and Bases

	ASPHALT ROADS								
S.L No	Type of Construction	Test	Frequency (min)	Unit	Bill of Quantity	Unit	Convartion	No of Sample Conducted for Test	No. Of Sample to Be Conduct for Test
3	Water Mix Macadam	Aggegate Impact Value	1,000.00	Cum	855.78	Cum		1.00	1.00
		Grading of Aggregates	200.00	Cum				4.00	4.00
		Combined Flakiness and Elongation	500.00	Cum				2.00	2.00
		Atterberg Limits	200.00	Cum				4.00	4.00
		Density of Compacted Layer	1,000.00	Sqm			3,721.00	4.00	4.00
5	Dense Bituminous Macadam	Quality of Binder	Per Lot or Per Day		186.04	Cum			
		Aggegate Impact Value	350.00	Cum				1.00	1.00
		Combined Flakiness and Elongation	350.00	Cum				1.00	1.00
		Binder Content	400.00	Tonne			448.36	1.00	1.00
		Density of Compacted Layer	700.00	Sqm			1,240.00	2.00	
6	Bituminous Concrete	Quality of Binder	Per Lot or Per Day		315.42	Cum			
		Aggegate Impact Value	350.00	Cum				1.00	1.00
		Combined Flakiness and Elongation	350.00	Cum				1.00	1.00
		Binder Content	400.00	Tonne			760.17	2.00	2.00
		Density of Compacted Layer	700.00	Sqm			2103	3.00	

QUALITY CONTROL ABSTRACT

ame Of work : - Construction of Two RO plant in ward no. 07 Byatarayanapura

ob Code:-

ill No :- 4th and Part Bill

ame of Agency :- Benaka Developers & Project Pvt.Ltd.

Sl No	Description of Items	Test	Test Units	Test Per Qty	Up to Date Qty	No of Sample Conducted for Test	No. Of Sample to Be Conduct for Test
uilding Works							
	For Plane Cement Concrete -						
1	Cement Test				3.10		
		Setting Time - IS 12269 (53 grade ordinary Portland cement)	Days	One Source		1	1
		Soundness - IS 12269 (53 grade ordinary Portland cement)	Days	One Source		1	1
		Standarad Consistancy IS 12269 (53 grade ordinary Portland cement)	Days	One Source		1	1
2	Fine Aggregate						
		Specific Gravity and Water Absorption (IS 2386 Part. 3)1963	Days	One Source		1	1
		Sieve Analysis (IS 2386- Part 1)-1963	Days	One Source		1	1
3	Coarse Aggregate						
		Sieve Analysis (IS 2386- Part 1)-1963	Days	One Source		1	1
	For M20 Concrete -						
4	Cube Test						

TEJUS CONSULTANTS

Sl No	Description of Items	Test	Test Units	Test Per Qty	Up to Date Qty	No of Sample Conducted for Test	No. Of Sample to Be Conduct for Test
	Footing Concrete	Compressive Strength Test (IS 516-1959)	Cum	1 Sample for 5m3	2.59	1	1
	Column Concrete Below G.L	Compressive Strength Test (IS 516-1959)	Cum	1 Sample for 5m3	0.25	1	1
	Plinth Beam	Compressive Strength Test (IS 516-1959)	Cum	1 Sample for 5m3	0.76	1	1
	Column Concrete Above G.L	Compressive Strength Test (IS 516-1959)	Cum	1 Sample for 5m3	0.57	1	1
	Chajja Lintel	Compressive Strength Test (IS 516-1959)	Cum	1 Sample for 5m3	0.17	1	1
	Roof Beam	Compressive Strength Test (IS 516-1959)	Cum	1 Sample for 5m3	1.15	1	1
	Roof Slab	Compressive Strength Test (IS 516-1959)	Cum	1 Sample for 5m3	3.21	1	1
	Precast Items						
	Load Bearing Solid Block	Compression Strength Test (IS 2185, Part 1: 2005)	sqm	One Sample Per Batch	47.89	1	1

AE (Civil)